

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington



PETERS



XC: T.G. Bauman  
C.F. desJardins  
F.H. Smith

"CONFINE YOUR LETTER TO ONE SUBJECT ONLY" \_\_\_\_\_

January 17, 1985

TO: J.W. Bower  
FROM: R.S. Murphy *RSM*  
RE: High Velocity Limited Range Centerfire Program

GOAL: To develop a new centerfire rifle and cartridge combination featuring improved accuracy through the reduction of range estimation error and time of flight. The maximum range of the proposed high velocity lightweight bullet will also be significantly less than conventional projectiles. Following a determination of the bullet mush characteristics, the end user will be identified and a firearm will be designed.

Personnel Required:

R.S. Murphy	.1	
F.H. Smith	.4 + .1	(Applied Research)
C.F. desJardins	.1	(Applied Research)
T.G. Bauman	.1	(Applied Research)

Program Timing: Ammo Development

<u>Phase</u>	<u>Complete by:</u>
Pressure & Velocity Investigation	April 1, 1985
Accuracy Investigation	July 1, 1985
Terminal Ballistic Investigation	November 1, 1985

Program Timing: Firearm Development

Conceptualization, Preliminary Report	June 3
Management Review	June 17
Preliminary Design	September 16

High Velocity Limited Range Centerfire Program

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Comments:

The majority of work done to date has been purely thoeretical and the remaining work is research oriented (as opposed to development oriented.) Due to the large number of unanswered questions the development schedules are only estimates.

Investigation to date seems to indicate that higher than conventional velocities are required. Constraints limiting velocity may include chamber pressure, bore erosion, bullet stability and/or bullet design. The availability of Model Shop time to make prototype bullets, and Test Lab time to handload them, as well as photography equipment to analyze them may adversely effect the schedule.

Terminal ballistics or bullet mush is the final phase of ammunition development. From the bullet mush characteristics we will identify the end user and complete the firearm development.

RSM:sps